

IN THE CLAIMS:

Please amend the claims as follows, this listing of the claims will replace all prior versions, and listings, of claims in the application:

Claims 1-12 (Canceled)

13. (Currently Amended) A cooking, roasting, baking or grilling device wherein a part or portion thereof having has a substrate with a self-cleaning coating thereon which enables remnants of foodstuffs to be removed without mechanical action, comprising:

the coating having a structure formed from a plurality of porous particles having pores therein and a binder; ~~[[and]]~~

said pores in said porous particles in said structure not having a solid or liquid secondary phase therein;

wherein said binder is an inorganic binder and is substantially permanently temperature resistant up to about 500 degrees C; and

wherein said inorganic binder is an inorganic polymer comprised of an inorganic colloidal solution, formed with at least one of SiO₂, TiO₂, Al₂O₃, ZrO₂, SiC, Si₃N₄, B₂O₃, and mixtures of at least two of an open cell or dense glass, a polymeric phosphate, a silicate, and a clay or water glass.

14. (Previously presented) The device according to claim 13, wherein said porous particles are thermally and chemically stable porous metal oxides, carbides or nitrides.

15. (Previously presented) The device according to claim 13, wherein said porous particles are at least one of SiO₂, TiO₂, Al₂O₃, ZrO₂, SiC, Si₃N₄, C and B₂O₃.

16. (Previously presented) The device according to claim 13, wherein said porous particles have a diameter substantially in the range of 5 to 100 microns.

17. (Previously presented) The device according to claim 13, wherein said porous particles have open-cell pores.

18. (Canceled)

19. (Previously presented) The device according to claim 18, wherein said binder comprises particles having a diameter substantially in the range of 0.5 to 10 microns.

20. (Previously presented) The device according to claim 13, wherein said coating includes addition particles that function to at least one of, reduce the roughness of the coating, improve the binding between said porous particles, improve the binding between said coating and the substrate, adjust the color of said coating, or improve the thermal decomposition, the haptics or the spreading ability of said coating.

21. (Previously presented) The device according to claim 20, wherein said addition particles are at least one of nanoscale particles, particles in the micrometer range, pigment particles, metals, including at least one of transition metals and metal oxides.

22. (Previously presented) The device according to claim 21, wherein said addition particles are thermally and chemically stable, and comprise at least one of metal oxides, carbides and nitrides, including at least SiO_2 , TiO_2 , Al_2O_3 , ZrO_2 , SiC , Si_3N_4 , or B_2O_3 .

23. (Previously presented) The device according to claim 13, wherein the part or portion is a part or portion of a baking oven muffle.

24. (Previously presented) The device according to claim 13, wherein the part or portion is a part or portion of an oven or a stove.

25. (Previously presented) The device according to claim 15, wherein said porous particles are at least one of Al_2O_3 and SiO_2 .

26. (Canceled)

27. (Previously presented) The device according to claim 19, wherein said particles have a diameter substantially of about 1 to 5 microns.

28. (Previously presented) The device according to claim 16, wherein said diameter is substantially about 10 to 80 microns.

29. (Previously presented) The device according to claim 16, wherein said diameter is substantially about 20 to 60 microns.

30. (Previously presented) The device according to claim 16, wherein said diameter is substantially about 30 to 50 microns.

31. (Canceled)

32. (New) A cooking device having has a substrate with a self-cleaning coating thereon which enables remnants of foodstuffs to be removed without mechanical action, comprising:

the coating having a structure formed from a plurality of porous particles having pores therein and an inorganic binder being substantially temperature resistant up to about 500 degrees C, wherein said inorganic binder includes an inorganic colloidal solution having ZrO_2 particles in liquid phase.